

m-f



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,634	11/21/2003	Siamak Naghian	60091.00251	9140

32294 7590 08/23/2006

SQUIRE, SANDERS & DEMPSEY L.L.P.  
14TH FLOOR  
8000 TOWERS CRESCENT  
TYSONS CORNER, VA 22182

EXAMINER

LE, DANH C

ART UNIT	PAPER NUMBER
----------	--------------

2617

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/717,634

Applicant(s)

NAGHIAN ET AL.

Examiner

DANH C. LE

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 13-23, 26-36, 39-46 is/are rejected.
- 7) ☒ Claim(s) 11, 12, 24, 25, 37 and 38 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

**1. Claims 1-7, 9, 13-20, 22, 26-33, 35, 39, 40, 43-46 are rejected under 35**

**U.S.C. 102(e) as being anticipated by Hunte (US 6,665,538).**

As to claim 1, Hunte teaches a method for deciding on handover in a cellular communication system (figures 1, 6 and their descriptions) comprising cells and a mobile station having a connection to at least a first cell providing a certain data transfer rate i.e. a bit rate to the mobile station, the method comprising:

collecting bit rate information related to the mobile station (figure 6, step A); and  
using the bit rate information for deciding on handover of the mobile station from the first cell to a second cell (figure 6, step B)

As to claim 2, Hunte teaches a method of claim 1, wherein the bit rate information comprises at least one of the following: the bit rate provided to the mobile station by the first cell, a bit rate provided to the mobile station by at least one other cell, a bit rate requested by the mobile station (figure 2 and its description).

As to claim 3, Hunte teaches the method of claim 1, wherein the decision on handover of the mobile station from the first cell to the second cell comprises deciding on whether handover should be carried out (figure 6, step B).

As to claim 4, Hunte teaches the method of claim 1, wherein the decision on handover of the mobile station from the first cell to the second cell comprises deciding on to which cell handover of the mobile station should be made (col.7, lines 51-57).

As to claim 5, Hunte teaches the method of claim 1, wherein the decision on handover of the mobile station from the first cell to the second cell comprises deciding on when handover should be carried out (col.3, lines 32-47).

As to claim 6, Hunte teaches the method of claim 1, wherein information about traffic distribution in the system is utilized when deciding on handover of the mobile station (col.6, lines 33-44).

As to claim 7, Hunte teaches the method of claim 1, wherein information about capacity provided by the system in different parts of the system is utilized when deciding on handover of the mobile station (col.6, lines 33-44).

As to claim 9, Hunte teaches the method of claim 3, further comprising defining a handover profile which defines preferable cell(s) for each bit rate, whereby the handover profile is used when deciding on handover of the mobile station (figure 3 and its description).

As to claim 13, Hunte teaches the method of claim 1, wherein the first cell and the second cell belong to different radio access systems or to the same radio access system (figure 1 and its description).

As to claim 14, the claim is the system claim of claim 1; therefore, the claim is interpreted and rejected as set forth as claim 1.

As to claim 15, the claim is the system claim of claim 2; therefore, the claim is interpreted and rejected as set forth as claim 2.

As to claim 16, the claim is the system claim of claim 3; therefore, the claim is interpreted and rejected as set forth as claim 3.

As to claim 17, the claim is the system claim of claim 4; therefore, the claim is interpreted and rejected as set forth as claim 4.

As to claim 18, the claim is the system claim of claim 5; therefore, the claim is interpreted and rejected as set forth as claim 5.

As to claim 19, the claim is the system claim of claim 6; therefore, the claim is interpreted and rejected as set forth as claim 6.

As to claim 20, the claim is the system claim of claim 7; therefore, the claim is interpreted and rejected as set forth as claim 7.

As to claim 22, the claim is the system claim of claim 9; therefore, the claim is interpreted and rejected as set forth as claim 9.

As to claim 26, the claim is the system claim of claim 13; therefore, the claim is interpreted and rejected as set forth as claim 13.

As to claim 27, the limitation of claim is the same limitation of claim of claim 1; therefore, the claim is interpreted and rejected as set forth as claim 1.

As to claim 28, the limitation of claim is the same limitation of claim of claim 2; therefore, the claim is interpreted and rejected as set forth as claim 2.

As to claim 29, the limitation of claim is the same limitation of claim of claim 3; therefore, the claim is interpreted and rejected as set forth as claim 3.

As to claim 30, the limitation of claim is the same limitation of claim of claim 4; therefore, the claim is interpreted and rejected as set forth as claim 4.

As to claim 31, the limitation of claim is the same limitation of claim of claim 5; therefore, the claim is interpreted and rejected as set forth as claim 5.

As to claim 32, the limitation of claim is the same limitation of claim of claim 6; therefore, the claim is interpreted and rejected as set forth as claim 6.

As to claim 33, the limitation of claim is the same limitation of claim of claim 7; therefore, the claim is interpreted and rejected as set forth as claim 7.

As to claim 35, the limitation of claim is the same limitation of claim of claim 9; therefore, the claim is interpreted and rejected as set forth as claim 9.

As to claim 39, Hunte teaches the system element of claim 27, wherein the system element is a radio network controller (figure 1).

As to claim 40, Hunte teaches the system element of claim 27, wherein the system element is the mobile station (figure 1).

As to claim 41, the limitation of claim is the same limitation of claim of claim 13; therefore, the claim is interpreted and rejected as set forth as claim 13.

As to claim 43, Hunte teaches a method for deciding on handover in a cellular communication system comprising cells and a mobile station having a connection to at least a first cell providing a certain data transfer rate, comprising a bit rate (figure 1, 6 and their descriptions, to the mobile station, the method comprising:

collecting bit rate information related to the mobile station, the collecting comprising measuring the bit rate provided to the mobile station by the first cell and/or a bit rate provided to the mobile station by a second cell (figure 6, step A) and

using the bit rate information for deciding on handover of the mobile station from the first cell to the second cell, the deciding comprising deciding to perform the mobile station handover from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfils a predetermined conditions (figure 6, step B and col.5, lines 8-27).

As to claim 43, the claim is the cellular system claim of claim 43; therefore, the claim is interpreted and rejected as set forth as claim 43.

As to claim 22, the claim is the system claim of claim 43; therefore, the claim is interpreted and rejected as set forth as claim 43.

As to claim 46, the claim is an apparatus claim of claim 43; therefore, the claim is interpreted and rejected as set forth as claim 43.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 8, 21, 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunte in view of Santhoff (US 6,907,244).**

As to claim 8, Hunte teaches method of claim 1, further comprising: defining cell within the coverage area of the system, and defining preferable bit rates for each cell, whereby so defined cell information is used when deciding on handover of the mobile station. Hunte fails to teach sub-area within the cover area. Santhoff teaches sub-area within the cover area (figure 4). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Santhoff into the system of Hunte in order to hand over from one sector to another sector within the coverage area.

As to claim 21, the claim is the system claim of claim 8; therefore, the claim is interpreted and rejected as set forth as claim 8.

As to claim 34, the limitation of claim is the same limitation of claim of claim 8; therefore, the claim is interpreted and rejected as set forth as claim 8.

**3. Claims 10, 23, 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunte in view of Amerijoo (US 6,728,217).**

As to claim 10, Hunte teaches the method of claim 5, wherein, when the mobile station is moving from the first cell to the second cell, the method comprises:

providing the bit rate to the mobile station by the first cell and/or a bit rate provided to the mobile station by the second cell and

performing the mobile station handover from the first cell to the second cell when the bit rate provided by the first cell and/or the bit rate provided by the second cell fulfills a predetermined conditions.



Hunte fails to teach measure the bit rate. Amerijoo teaches measuring the bit rate (figure 3, 300). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the teaching of Amerijoo into the system of Hunte in order to handover of the determination cell border in the cellular communication system.

As to claims 23, 36, the limitations of the claims are the same limitations of claim 10; therefore, these claims are interpreted and rejected as set forth as claim 10.

#### ***Allowable Subject Matter***

Claims 11-12, 24-25, 37-38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

As to claim 11, the teaching of prior arts above either combine or alone fails to **further comprising** the predetermined condition limit value requires that the bit rate is lower than a predetermined limit value, higher than a predetermined limit value or between two predetermined limit values.

Dependent claims 12, 25, 38 are allowable for the same reason.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANH C. LE whose telephone number is 571-272-7868. The examiner can normally be reached on 8:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, WILLIAM TROST can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

A handwritten signature in black ink, appearing to read 'danh', is written over a horizontal line.

August 18, 2006.

DANH CONG LE  
PRIMARY EXAMINER